

## Hiroshi YOSHIYAMA: Malformation of *Salix futura* Seemen (Salicaceae) from Honshu, Central Japan

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Fig. 1. Female catkin of a malformed tree of *Salix futura*, cultivated at Yoshiyama Willow Garden, Hachiōji, Tokyo, Japan. Photo: April 2007.

**Summary:** A tree with much branched catkins was found in *Salix futura* from Honshu, central Japan.

A seedling of *Salix futura* Seemen was growing at the nursery in Tama Forest Science Garden, Tokyo. The author layered it and planted a new sapling in his own willow garden. The sapling was female and bore malformed catkins, which branched into several parts at the apices (Fig. 1). Such malformation was more distinct at the end of branch.

While the wild type of *Salix futura* bore perfectly oval floral buds, the buds of this tree were distorted (Fig. 2) and malformation became

more noticeable as the floral buds developed into infructescence through inflorescence.

There were some morphological differences between the wild type and this tree. While the wild type bore leaves 8–18 cm long, 6–8 cm wide, this tree had smaller leaves 7–9 cm long, 3–3.5 cm wide. Furthermore the tree had thinner branches than the wild type and the branches bent slightly downward at the apices. The tree reached a height of 2 m in cultivation while the wild type grew to 2–4 m.

Other traits, such as the shape of leaf blades, stipules, the color of catkins and floral buds, and the tree shape, are same as the wild type, *S.*



Fig. 2. Winter floral bud of a malformed tree of *Salix futura*.

#### 吉山 寛：オオキツネヤナギの奇形

オオキツネヤナギの奇形を報告した。これは、雌花序が多数分岐する奇形で、そのため冬芽のうちからすでに形が不整形である。十数年前、著者が植えた多摩森林科学園の柳苗畠で自然に芽生えたヤナギ属植物の実生が成長したものである。オオキツネヤナギの名は花序が狐色を呈することによるが、花序がキツネヤナギより大型になる種

*futura*, as well as the presence of conspicuous elevated longitudinal striations on sapwood.

Voucher specimen: JAPAN. Tokyo Pref., Hachiōji, Nishi-asakawa-machi, cultivated at Yoshiyama Willow Garden (Y-m-1), April 2007, Hiroshi Yoshiyama 368057 (TUS).

Note: This tree is propagated by layerage as it does not do well by cutting. The original tree at Tama Forest Science Garden died and the trees grow only at the author's garden.

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#### References

Kimura A. 1989. *Salicaceae*. In: Satake Y., Hara H., Watari S. and Tominari T. (eds.), Wild Flowers of Japan. Woody Plants I: 31–51, pls. 39–58. Heibonsha, Tokyo (in Japanese).  
 Yoshiyama H. and Ishikawa M. 1992. *Ochiba Zukan*. p. 15. Bun-ichi Sogo Shuppan, Tokyo (in Japanese).

である。正常な株と区別する必要があるので、通称「九尾の大狐柳」と呼んでいる。原株はすでに枯れ、生品は著者の柳園のみとなった。挿木は困難なため空中取木で増殖している。

(吉山柳園)